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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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EXAMINER

WOOD, KEVIN S

ART UNIT

PAPER NUMBER

2874

DATE MAILED: 09/26/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/941,474

Applicant(s)

ZHANG ET AL.

Examiner

Kevin S Wood

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1, 5, 6, 9-14 and 16 is/are rejected.
- 7) ☒ Claim(s) 2-4, 7, 8, 15 and 17 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

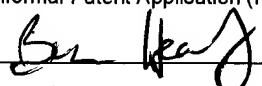
Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 August 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: 

DETAILED ACTION

Specification

1. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

2. The disclosure is objected to because of the following informalities: the abstract should avoid the use of the phrase "Methods and apparatus... **are disclosed**".

Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 9 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is unclear how the location of the optical element can be a location other than the center of the optical element. For examination purposes, the

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examiner will assume that the claim was intended state that the location of the optical element is a location other than the center of the module.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in-

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or

(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

6. Claims 1, 5-6, 9-14 and 16 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,430,337 to Bergmann et al.

Referring to claim 1, the prior art discloses all of the limitations of the claimed invention. Bergmann et al. discloses an optical alignment system, including: an optical element having a specified response at a first location; and a mechanism for redirecting incident light to a second location on the optical element so as to achieve a desired response other than the specified response. Figures 7-9 show the aligning of the optical device. The device has a specified response (high signal loss) when not properly aligned, while achieving a desired response (optimal alignment with low signal loss) when properly aligned.

Referring to claim 5, the prior art discloses all of the limitations of the claimed invention. Bergmann et al. discloses that the incident light is redirected along a path offset from an axis formed by the center of the optical element. See Figures 2-5, that shows incident light offset from an axis formed by the center of the optical element.

Referring to claim 6, the prior art discloses all of the limitations of the claimed invention. Bergmann et al. discloses an optical alignment system, including: a module having a center of rotation (318); an optical element (326) having a center of rotation and being affixed to the module such that the center of rotation of the optical element is offset from the center of rotation of the module; a mechanism for redirecting light, the mechanism including a wedge (328), wherein the redirecting mechanism redirects incident light to a location on the optical element. See Figures 5, 7-9.

Referring to claim 9, the prior art discloses all of the limitations of the claimed invention. Bergmann et al. discloses the location of the optical element (326) is a location other than the center of the optical module (318).

Referring to claim 10, the prior art discloses all the limitations of the claimed invention. Bergmann et al. discloses the location is selectable so as to produce a desired response. Bergmann et al. discloses that the location of the incident light is adjusted to achieve optimal alignment.

Referring to claim 11, the prior art discloses all the limitations of the claimed invention. Bergmann et al. discloses that the redirecting mechanism is configured to redirect light along a path, which is substantially parallel to and offset from an axis normal to the center of rotation of the module. See Fig. 5.

Referring to claim 12, the prior art discloses all the limitations of the claimed method. Bergmann et al. discloses a method of aligning an optical system, including: providing an optical element having a specified response at a predetermined location and providing incident light to a location of the optical element so as to achieve a desired response. The device has a specified response (high signal loss) when not properly aligned, while achieving a desired response (optimal alignment with low signal loss) when properly aligned.

Referring to claim 13, the prior art discloses all the limitations of the claimed method. Bergmann et al. discloses that incident light is redirected along a path offset from an axis formed by a center of the optical element.

Referring to claim 14, the prior art discloses all the limitations of the claimed method. Bergmann et al. discloses a method of aligning an optical system, including: providing a module (318) having a center of rotation and an optical element (326) having a center; affixing the optical element to the module such that the center of the optical element is offset from the center of rotation of the module; applying incident light to the optical element, the incident light traveling along a path offset from the center of rotation; and rotating the module about the center of rotation until a predetermined response of the optical element is achieved. See the Figures of the reference.

Referring to claim 16, the prior art discloses all the limitations of the claimed invention. Bergmann et al. discloses an optical alignment system, including: a module means for rotating about a center of rotation; optical means, supported by said module means, for responding to an incident light and producing a plurality of responses; the

optical means having a predetermined response at a position offset from the center of rotation; means for applying incident light to the optical means, the incident light traveling along a path offset from the center of rotation; means for rotating the module about the center of rotation until a desired response is achieved. See the Figures of the reference.

Allowable Subject Matter

7. Claims 2-4, 7-8, 15 and 17 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
8. The following is a statement of reasons for the indication of allowable subject matter:

Referring to claim 2, the prior art does not disclose all the limitations of the claimed invention. The prior art does not disclose an apparatus for tuning an optical element as claimed, including the optical element comprising a thin-film filter, and the specified response comprising the center wavelength of the thin-film filter.

Referring to claims 3 and 4, the prior art does not disclose all the limitations of the claimed invention. The prior art does not disclose an apparatus for tuning an optical element as claimed, including the redirecting mechanism comprises a pigtail having a wedge in a transmitting end of the pigtail.

Referring to claim 7, the prior art does not disclose all the limitations of the claimed invention. The prior art does not disclose an apparatus for tuning an optical element as claimed, including the redirecting mechanism comprises a pigtail having the wedge formed in a transmitting end.

Referring to claim 8, the prior art does not disclose all the limitations of the claimed invention. The prior art does not disclose an apparatus for tuning an optical element as claimed, including the wedge having an angle ranging from approximately 8° to approximately 12° .

Referring to claim 15, the prior art does not disclose all the limitations of the claimed method. The prior art does not disclose a method for tuning an optical element as claimed, including the optical element comprising a filter having a plurality of responses, where the act of rotating includes the act of selecting one of the plurality of responses as the predetermined response.

Referring to claim 17, the prior art does not disclose all the limitations of the claimed invention. The prior art does not disclose an apparatus for tuning an optical element as claimed, including the optical means comprises a filter having a plurality of responses.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Patent Publication No. 2002/0131699 to Raguin et al.

U.S. Patent Publication No. 2002/0118929 to Brun et al.

U.S. Patent Publication No. 2002/0118920 to Francis et al.

U.S. Patent No. 6,343,166 to Hellman et al.


Each of these references discloses a device similar to that of the claimed invention.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin S Wood whose telephone number is (703) 605-5296. The examiner can normally be reached on Monday-Thursday (7am - 5:30 pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rodney B Bovernick can be reached on (703) 308-4819. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9318 for regular communications and (703) 872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 307-0956.

KSW
September 23, 2002


Ben Healy
Patent Examiner

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